

AMENDMENTS TO THE CLAIMS

Please make the following amendments to the claims:

1. (Original) A method for a computer to display Domain Name System (DNS) information in active use for a domain name to a remote customer and to dynamically update the DNS information in response to a request from the customer, the computer storing the DNS information as a service to the customer in multiple DNS resource records (RRs) in a first of multiple zone data files, the dynamic updating using an update file distinct from the zone data files to identify updates to DNS information, comprising:
 - under control of a device operated by the customer,
 - sending a request to the computer for DNS information for the domain name, and
 - receiving DNS information from the stored DNS RRs in response;
 - displaying the received DNS information to the customer;
 - receiving an indication from the customer of a change to displayed DNS information that corresponds to a first of the DNS RRs; and
 - instructing the computer to modify the DNS information for the first DNS RR to include the changed DNS information; and
 - under control of the computer,
 - before receiving the sent request for the DNS information, responding to requests from clients for DNS information about the domain name by sending copies of cached DNS information that was read from the stored DNS RRs;
 - receiving the sent request from the device, and sending a copy of the cached DNS information to the device in response;
 - receiving the instruction to modify the DNS information; and

in response to the instruction, updating the first DNS RR in the stored first zone data file to contain the changed DNS information and modifying the update file to indicate that the stored first zone data file has been updated,

so that before the DNS information in the first DNS RR is next sent to a client, the indication of the stored first zone data file in the modified update file will cause the changed DNS information for the first DNS RR in the updated stored first zone data file to replace the cached DNS information for the first DNS RR.

2. (Original) The method of claim 1 wherein the computer is operated by a DNS registrar, and including, before the sending of the request for the DNS information for the domain name:

displaying to the customer information related to registering new domain names;
receiving an indication from the customer to register the domain name; and
in response to the indication,
creating the first zone data file to hold the DNS information for the domain name; and
storing the DNS RRs in the first zone data file on the computer.

3. (Original) The method of claim 1 including periodically checking the update file to determine if any stored zone data files have been updated.

4. (Original) The method of claim 1 wherein the DNS information from all of the stored zone data files is cached into memory, and including:

determining that all of the stored zone data files are to be reread; and
reading the DNS information from each of the stored zone data files, and replacing the previously cached DNS information with the read DNS information.

5. (Original) The method of claim 1 wherein the copy of the DNS information sent to the device is a Web page.

6. (Original) The method of claim 5 wherein the displayed Web page includes displayed selectable items representing the DNS information, and wherein the indicated change to the displayed DNS information by the customer includes selection of a displayed selectable item corresponding to the DNS information to be changed.

7. (Original) The method of claim 1 wherein the DNS information for the domain name has associated access authorization information, and including receiving the access authorization information from the device before updating the first DNS RR in response to the instruction.

8. (Original) The method of claim 1 wherein the service provided to the customer is a hosting service.

9. (Original) The method of claim 1 wherein the service provided to the customer is connectivity service.

10. (Original) The method of claim 1 wherein the service provided to the customer is for the computer to act as a primary name server for a zone including the domain name.

11. (Original) The method of claim 1 including receiving payment from the customer for the updating of the first DNS RR.

12. (Currently Amended) A computer-implemented method for allowing a remote user to dynamically update stored Domain Name System (DNS) information, the DNS information comprising a cached portion and a distinct stored portion ~~that is in active use~~, the method comprising:

providing the remote user with a displayable copy of a specified portion of the DNS information associated with a domain name;

receiving an indication from the remote user of a specified change to ~~[[a]]~~ the specified portion of the DNS information; ~~and~~

~~dynamically updating the portion of the actively used DNS information to reflect the specified change.~~

modifying a first location in the stored portion to reflect the specified change, the first location corresponding to the domain name;

modifying an update data structure to provide an indication of the modification of the stored portion;

receiving a request for the specified portion of DNS information from a client; and
in response to the request and to the indication of the modification of the stored portion,
replacing a portion of the cached portion with the contents at the first location of the stored portion.

13-14. (Cancelled).

15. (Currently Amended) The method of claim 12 wherein the specified portion of the DNS information is stored in a database, ~~and wherein the dynamic updating of the portion includes modifying the stored DNS information portion in the database to reflect the specified change.~~

16. (Currently Amended) The method of claim 12 wherein the displayable copy is a Web page that when displayed to the user contains multiple selectable indications each associated with [[a]] the specified portion of the DNS information, the displayed indications such that selection of an indication by the user indicates a change to be made to the DNS information portion that is associated with the selected indication.

17. (Original) The method of claim 16 wherein each displayed selectable indication corresponds to a new value for the associated DNS information portion.

18. (Original) The method of claim 12 including providing the remote user with a displayable copy of account information associated with the remote user.

19. (Original) The method of claim 12 wherein the specified change is to modify previously stored DNS information.

20. (Original) The method of claim 12 wherein the specified change is to delete previously stored DNS information.

21. (Original) The method of claim 12 wherein the specified change is to add new DNS information.

22. (Original) The method of claim 12 wherein the method is performed by a primary name server computer for the DNS information, and including sending the updated DNS information portion to each slave name server computer for the DNS information.

23. (Original) The method of claim 12 wherein the stored DNS information includes DNS resource records.

24. (Original) The method of claim 12 wherein the stored DNS information includes DNS configuration records.

25. (Original) The method of claim 12 wherein the stored DNS information includes DNS who is records.

26. (Original) The method of claim 12 wherein the stored DNS information includes DNS delegation records.

27. (Original) The method of claim 12 wherein the stored DNS information is associated with a domain name.

28. (Original) The method of claim 27 including, before the providing of the displayable copy of the DNS information:

providing to the remote user information related to registering new domain names;
receiving an indication from the remote user to register the domain name; and
in response to the indication, storing the DNS information in a manner associated with the domain name.

29. (Currently Amended) The method of claim 27 including determining that the remote user is an administrative contact for the domain name before ~~dynamically updating the DNS information~~ modifying the first location in the stored portion.

30. (Currently Amended) The method of claim 27 including determining that the remote user is an owner of the domain name before ~~dynamically updating the DNS information~~ modifying the first location in the stored portion.

31. (Currently Amended) The method of claim 27 including, before ~~dynamically updating the DNS information~~ modifying the first location in the stored portion, determining that the remote user is one of a group of one or more users authorized to modify the DNS information for the domain name.

32. (Original) The method of claim 12 wherein the DNS information has associated access authorization information, and including receiving the access authorization information from the remote user before providing the displayable copy of the DNS information to the remote user.

33. (Currently Amended) The method of claim 12 wherein the ~~dynamic updating~~ modifying the first location is provided as a service to the remote user.

34. (Original) The method of claim 33 including receiving payment from the remote user for the providing of the service.

35. (Currently Amended) A computer-readable medium whose contents cause a computing device to allow a remote user to dynamically update stored Domain Name System (DNS) information, the DNS information comprising a cached portion and a distinct stored portion ~~that is in active use,~~

providing the remote user with a displayable copy of a specified portion of the DNS information associated with a domain name;

receiving an indication from the remote user of a specified change to ~~[[a]]~~ the specified portion of the DNS information; ~~and~~

~~dynamically updating the portion of the actively used DNS information to reflect the specified change.~~

modifying a first location in the stored portion to reflect the specified change, the first location corresponding to the domain name;

modifying an update data structure to provide an indication of the modification of the stored portion;

receiving a request for the specified portion of DNS information from a client; and
in response to the request and to the indication of the modification of the stored portion,
replacing a portion of the cached portion with the contents at the first location of the stored portion.

36-37. (Cancelled).

38. (Currently Amended) The computer-readable medium of claim 35 wherein the specified portion of the DNS information is stored in a database, ~~and wherein the dynamic updating of the portion includes modifying the stored DNS information portion in the database to reflect the specified change.~~

39. (Currently Amended) The computer-readable medium of claim 35 wherein the displayable copy is a Web page that when displayed to the user contains multiple selectable indications each associated with [[a]] the specified portion of the DNS information, the displayed indications such that selection of an indication by the user indicates a change to be made to the DNS information portion that is associated with the selected indication.

40. (Original) The computer-readable medium of claim 35 wherein the computer-readable medium is a memory of a computer.

41. (Original) The computer-readable medium of claim 35 wherein the computer-readable medium is a data transmission medium transmitting a generated data signal containing the contents.

42-44. (Cancelled).

45. (Currently Amended) A computing device for allowing a remote user to dynamically update stored Domain Name System (DNS) information, the DNS information comprising a cached portion and a distinct stored portion that is in active use, comprising:

means for providing the remote user with a displayable copy of a specified portion of the DNS information associated with a domain name;

means for receiving an indication from the remote user of a specified change to [[a]] the specified portion of the DNS information; ~~and~~

~~means for dynamically updating the portion of the actively used DNS information to reflect the specified change.~~

means for modifying a first location in the stored portion to reflect the specified change, the first location corresponding to the domain name;

means for modifying an update data structure to provide an indication of the modification of the stored portion;

means for receiving a request for the specified portion of DNS information from a client; and

means for responding to the request and to the indication of the modification of the stored portion, by replacing a portion of the cached portion with the contents at the first location of the stored portion.

46. (Currently Amended) A computer-implemented method for allowing a user of a remote device to dynamically update Domain Name System (DNS) information currently associated with a domain name, the DNS information comprising a cached portion and a distinct stored portion, the method comprising:

~~repeatedly receiving requests from clients for DNS information associated with the domain name, and in response to each request providing the DNS information to the requesting client;~~

receiving a request from the remote device for DNS information associated with the domain name;

determining that the user of the remote device is authorized to modify the specified portion of the DNS information ~~associated with the domain name~~;

providing a Web page to the remote device that when displayed to the user contains at least one selectable indication associated with the specified portion of the DNS information, the displayed indications such that selection of an indication by the user represents changed DNS information associated with the domain name;

receiving an indication from the remote device of a selection by the user of one of the selectable indications representing the changed DNS information;

~~dynamically updating the DNS information so that it includes the changed DNS information; and~~

modifying a first location in the stored portion to include the changed DNS information, the first location corresponding to the domain name;

modifying an update data structure to provide an indication of the modification of the stored portion;

receiving a request from a client for the DNS information associated with the domain name, ~~and in response providing the updated DNS information to the requesting client.~~

in response to the request and to the indication of the modification of the stored portion,
replacing a portion of the cached portion with the contents at the first location of the stored
portion; and

in response to the replacing, providing to the client the requested DNS information from
the cached portion.

47. (Cancelled).

48. (Currently Amended) The method of claim 46 wherein the specified portion of
the DNS information is stored in at least one database record, ~~and wherein the dynamic updating~~
~~includes modifying the database records to include the changed DNS information.~~

49. (Currently Amended) A computer-readable medium whose contents cause a
computing device to allow a remote user to dynamically update over the Internet stored Domain
Name System (DNS) information currently associated with a domain name, by:

~~repeatedly receiving requests from clients for DNS information associated with the~~
~~domain name, and in response to each request providing the DNS information to the requesting~~
~~client;~~

receiving a request from the user ~~of the remote device~~ over the Internet for a specified
portion of the DNS information associated with the domain name;

determining that the user is authorized to modify the specified portion of the DNS
information ~~associated with the domain name;~~

presenting the specified portion of the DNS information to the user ~~on the remote device~~
over the Internet in a manner consistent with the presentation capabilities of the ~~remote~~
computing device;

receiving an indication from the user of ~~updated~~ changed DNS information for the
domain name;

~~dynamically updating the DNS information to include the updated DNS information; and~~
modifying a first location in a stored portion of the DNS information to include the
changed DNS information, the first location corresponding to the domain name;

modifying an update data structure to provide an indication of the modification of the
stored portion;

receiving a request from a client for the DNS information associated with the domain
name; and , ~~and in response providing the updated DNS information to the requesting client.~~

in response to the request and to the indication of the modification of the stored portion,
replacing a cached portion of the DNS information with the contents at the first location of the
stored portion; and

in response to the replacing, providing to the client the requested DNS information from
the cached portion.

50. (Currently Amended) The computer-readable medium of claim 49 wherein the
presenting of the DNS information to the user includes providing a Web page to the remote
device that when displayed contains at least one selectable indication associated with the
specified portion of the DNS information such that selection of an indication by the user
indicates a change to be made to the specified portion of the DNS information.

51. (Currently Amended) A computing device for allowing a remote user to dynamically update stored Domain Name System (DNS) information currently associated with a domain name, the DNS information comprising a cached portion and a distinct stored portion, comprising:

a DNS information dynamic provider component capable of ~~repeatedly receiving requests from clients for DNS information associated with the domain name and providing the DNS information to the requesting clients,~~ of receiving a request from the user of the remote device for a specific portion of the DNS information associated with the domain name, of determining that the user is authorized to modify the specific portion of the DNS information associated with the domain name, and of providing the specific portion of the DNS information to the user in a format consistent with the presentation capabilities of the remote computing device; and

a DNS information dynamic modifier component capable of receiving an indication from the user of updated changed DNS information for the domain name, and capable of modifying a first location in a stored portion of the DNS information to include the changed DNS information, the first location corresponding to the domain name, and capable of modifying an update data structure to provide an indication of the modification of the stored portion; and ~~dynamically updating the DNS information to include the updated DNS information,~~

and wherein the DNS information dynamic provider component is additionally capable of, after the ~~dynamic updating of the DNS information~~ modifying of the update data structure, receiving a request from a client for the DNS information associated with the domain name, and in response providing the updated DNS information to the requesting client in response to the request and to the indication of the modification of the stored portion, replacing a portion of the

cached portion with the contents at the first location of the stored portion; and in response to the replacing, providing to the client the requested DNS information from the cached portion.

52. (Currently Amended) The computing device of claim 51 wherein the DNS information provided to the user is a Web page that when displayed contains at least one selectable indication associated with the specified portion of the DNS information such that selection of an indication by the user represents a change to be made to the specified portion of the DNS information.

53. (Original) The computing device of claim 51 wherein the remote device includes a DNS information visual updater component capable of presenting the provided DNS information to the user on the remote device in a manner consistent with the presentation capabilities of the remote device.

54. (Currently Amended) A method for a computer of a registrar to allow a user of a remote device to dynamically update current Domain Name System (DNS) information to include DNS information for a new domain name, the DNS information comprising a cached portion and a distinct stored portion, comprising:

providing a Web page to the remote device that when displayed to the user contains a first selectable indication for registering representing a new domain name to be registered and at least one second selectable indication representing DNS information for the new domain name;

receiving ~~[[an]]~~ the first indication from the remote device ~~of a selection by the user of the selectable indication for registering a~~ representing a specified new domain name and ~~[[of]]~~ receiving at least one of the second ~~selection~~ indications representing the DNS information for the ~~specified~~ new domain name;

~~dynamically updating the current DNS information to include the represented DNS information for the specified new domain name; and~~

modifying a first location in the stored portion to include the indicated new domain name and the indicated DNS information, the first location corresponding to the indicated new domain name;

modifying an update data structure to provide an indication of the modification of the stored portion;

receiving a request from a client for the DNS information associated with the ~~specified indicated~~ new domain name; and ~~, and in response providing the represented DNS information to the requesting client.~~

in response to the request and to the indication of the modification of the stored portion, replacing a portion of the cached portion with the contents at the first location of the stored portion; and

in response to the replacing, providing to the client the requested DNS information from the cached portion.

55. (Currently Amended) The method of claim 54 wherein ~~the~~ current DNS information is maintained by the registrar, and including dynamically updating DNS information maintained by a computer for a higher-level domain to include a delegation record for the specified new domain name that indicates the computer of the registrar.

56. (Original) The method of claim 55 wherein the higher-level domain is a top-level domain.

57. (Currently Amended) The method of claim 54 including generating DNS information for the specified new domain name based on a service to be provided to the user by the registrar, and wherein the ~~dynamic updating of the current~~ specified portion of the DNS information includes the generated DNS information for the specified new domain name.

58. (Cancelled).

59. (Currently Amended) A computer-readable medium whose contents cause a computing device of a registrar to allow a user of a remote device to dynamically update over the Internet current Domain Name System (DNS) information to include DNS information for a new domain name, by:

presenting information over the Internet to the user on the remote device related to registering a new domain and specifying DNS information for the new domain;

receiving a request from the user of the remote device over the Internet to register a specified new domain name, the request ~~including~~ specifying DNS information for the specified new domain name;

~~dynamically updating the current DNS information to include the included DNS information for the specified new domain name; and~~

modifying a first location in the stored portion to include the specified new domain name and the specified DNS information, the first location corresponding to the specified new domain name;

modifying an update data structure to provide an indication of the modification of the stored portion;

receiving a request from a client for the DNS information associated with the specified new domain name; ~~and, and in response providing the included DNS information to the requesting client.~~

in response to the request and to the indication of the modification of the stored portion, replacing a portion of the cached portion with the contents at the first location of the stored portion; and

in response to the replacing, providing to the client the requested DNS information from the cached portion.

60. (Currently Amended) The computer-readable medium of claim 59 wherein ~~the~~ current DNS information is maintained by the registrar, and including dynamically updating DNS information maintained by a computer for a higher-level domain to include a delegation record for the specified new domain name that indicates the computing device of the registrar.

61. (Original) The computer-readable medium of claim 59 wherein the higher-level domain is a top-level domain.

62. (Original) The computer-readable medium of claim 59 wherein the presenting of the information to the user on the remote device includes providing a Web page to the remote device that when displayed contains a selectable indication for registering a new domain, and wherein sending of the request by the user to register a specified new domain name is based on selecting of the displayed selectable indication by the user.

63. (Currently Amended) The computer-readable medium of claim 59 wherein the contents further cause generating of DNS information for the specified new domain name based on a service to be provided to the user by the registrar, and wherein the ~~dynamic updating of the current specified portion of the~~ DNS information includes the generated DNS information for the specified new domain name.

64-69 (Cancelled).